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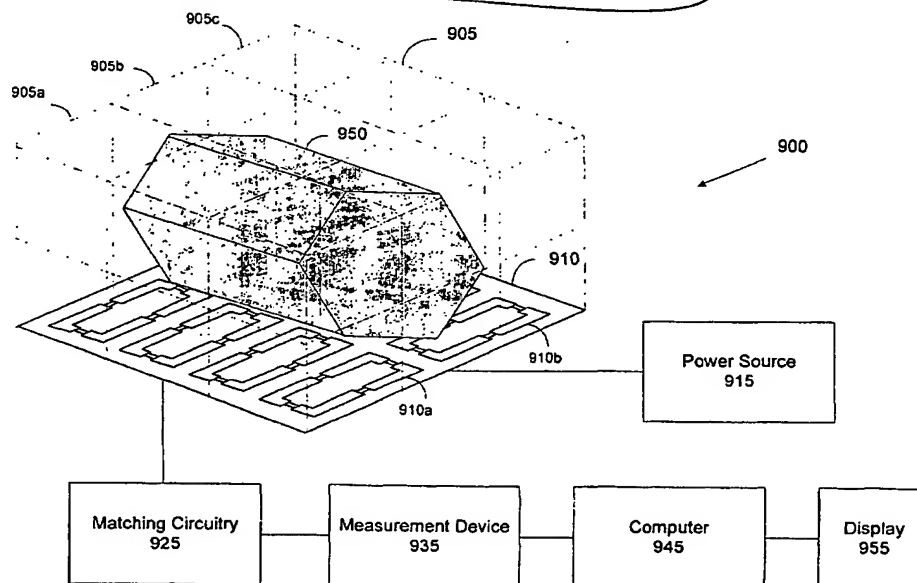
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(54) Title: **RADIO FREQUENCY IMPEDANCE MAPPING**



(57) Abstract: Methods and apparatus for determining dielectric properties such as conductivity, permittivity and/or permeability of a body are provided. An array of resonant coils (950) capable of generating electromagnetic radiation are provided proximate a body (950) to imaged. Properties of the array of coils are influenced by the loading effect of the body. More particularly, one or more resonant properties of the coils are perturbed, the perturbation of which may be measured to obtain an indication of the conductivity, permittivity and permeability of the loading body.